Patent claims

1. An air vent for a ventilation system in a vehicle, comprising an air circulation chamber (1) defined by a housing that has a generally bulged shape, an inflow duct (2) connected to said housing and opening into the circulation chamber (1), the housing having a perforated wall area (3), an air stream, in use, entering the circulation chamber (1) through said inflow duct (2), circulating through the air circulation chamber and exiting through the perforated wall area (3), and further comprising a movable air deflection member (4; 6) disposed to deflect the air stream transversely to an axial direction of said inflow duct (2).

2. The air vent according to Claim 1, wherein the air deflection member (4) is located opposite the perforated wall area (3) at an end of the inflow duct (2) which is connected to the housing.

3. The air vent according to Claim 2, wherein the air deflection member (4) has a generally ball-shaped body which is rotatably accommodated in an annular bearing seat in the end of the inflow duct (2), and which defines a channel section of cylindrical shape that extends diametrically through the ball-shaped body.

4. The air vent according to any of Claims 1 to 3, wherein an air guide (5) is arranged in the air circulation chamber (1) adjacent to the perforated wall area (3).

5. The air vent according to Claim 4, wherein the air guide (5) comprises a continuous wall that is spaced from and extends parallel to said perforated wall area.

6. The air vent according to Claim 4, wherein the air guide includes a set of curved baffle members (11) at fixed positions in the air circulation chamber upstream of said perforated wall area (3).

7. The air vent according to Claim 4, wherein the air guide includes a set of straight baffle members (12) pivotally mounted in the air circulation chamber upstream of said perforated wall area (3).

8. The air vent according to claim 1, wherein the air deflection member is a shield member (6) that has a convexly curved face exposed to an air stream entering, in use, the air circulation chamber through said inflow duct (2).

9. The air vent according to claim 8, wherein the shield member (6) is movable in said air circulation chamber in an axial direction towards and away from an opening in said housing where the inflow duct (2) is connected to the housing.

10. The air vent according to claim 9, wherein the shield member (6) is movable in said air circulation chamber transversely to the axial direction.

11. The air vent according to claim 8 or claim 9, wherein the shield member (6) is mounted in said air circulation chamber for pivotal movement about a pivotal axis that is perpendicular to the axial direction.

12. The air vent according to any of claims 8 to 11, wherein the housing has a generally spherical shape and the shield member (6) is circular in shape.

13. The air vent according to any of claims 8 to 12, and further comprising an annular diffuser structure (7) that is movable in the air circulation chamber towards and away from the perforated wall area (3).

14. The air vent according to claim 13, wherein the diffuser structure comprises an outer ring and a central deflection body that has a concave peripheral surface of revolution.

15. The air vent of claim 14, wherein the central deflection body has an end face opposite the perforated wall area (3) and adapted to cover a central part of the perforated wall area when moved into contact therewith.

16. The air vent according to any of the preceding claims, wherein the perforated wall area is formed by a fine-meshed grid (8).